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ABSTRACT

This report compares the relative adequacy of metropolitan and nonmetropolitan household income in Wisconsin. In 1981, 1,133 respondents completed the Wisconsin Basic Needs Survey, covering income, assets, debts, and taxes, filled out two-week diaries of food expenditures and small recurring expenses, and answered questions on perceived income needs and economic well-being. Compared to the metro sample, the nonmetro group contained more married men and farm workers, and was older and less educated. Average monthly incomes were $1,600 for nonmetro households and $1,858 for metro households. However, nonmetro households indicated they could "make ends meet" with $837 per month, compared to $931 for the metro group. There was little difference between groups in housing costs, possession of durable goods, or small recurring expenditures. Metro households spent more on large infrequent expenditures such as furniture and appliances, support payments, educational expenses, and trips. Although a large percentage of nonmetro households considered their financial status to be "just getting along," nonmetro households were no more negative about their standard of living or incomes than were metro households. High percentages of both groups were quite negative about the cost of basic necessities. It appears that nonmetro household are satisfied with less income, or nonmetro lifestyles may provide nonmonetary rewards that compensate for lower income. The report contains 10 references and 8 data tables. (SV)

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Income, Needs, and Expenditures: Metro-Nonmetro Differences in Wisconsin

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USDA-ERS-ARED

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INTRODUCTION

The average income of nonmetropolitan households has perennially been lower than the average income of metropolitan households. In 1979, average nonmetro household income was $16,926 compared to $21,418 for metro households. In Wisconsin, average nonmetro income was higher than the national average, $17,681, but metro households in Wisconsin also had higher average income, $21,693. The ratio of nonmetro to metro average income was 0.82 in Wisconsin compared to 0.79 for the Nation.

The difference in average income would be of no consequence if the price ratio for comparable consumer items was $0.82 in Wisconsin's nonmetro areas compared to $1.00 in its metro areas. The income difference would also be unimportant if nonmetro residents faced the same prices, but preferred a lower cost mix of purchases such that $0.82 bought the same utility/satisfaction as a dollar bought in metro areas. If neither of these scenarios reflects the real situation, then nonmetro households have an income disadvantage in relationship to metro households.

This report addresses the adequacy of income in nonmetro areas of Wisconsin through three dimensions: (1) home-ownership and possession of durable goods measure past expenditures, (2) current expenditures measure what income and credit-worthiness can buy, and, (3) households' responses to subjective questions on their well-being measure perceived adequacy of income. To combine aspects of these measures, households' perceived income needs are subjected to regression analysis to determine whether household characteristics or current spending patterns can explain the variation in what metro and

nonmetro households feel is necessary income. Comparing nonmetro and metro households in these ways provides a broad picture of the relative adequacy of nonmetro household income in Wisconsin.

BACKGROUND LITERATURE

It would be easy to compare the economic status of Wisconsin's metro and nonmetro households if there were cost of living measures for all areas. However, there is no measurement of the cost of living in nonmetro areas. The Bureau of Labor Statistics (BLS) computes consumer price indexes (CPIs) for urban areas. The metro urban areas include the surrounding metro rural areas, but the nonmetro urban areas do not include nonmetro rural areas. However, these price indexes are the closest measures we have to estimates of the cost of living. For selected months in 1981, the CPI for all items for North Central urban areas by population size was:

Population size class	Feb.	April	June	Aug.	Oct.	Dec.
1.25 million or more	144.0	145.9	150.0	152.3	152.6	152.6
385,000 to 1.25 million	142.8	143.5	146.6	148.1	148.8	149.2
75,000 to 385,000	139.7	140.2	142.3	145.4	145.9	147.4
75,000 or less	139.6	141.1	143.1	145.3	146.7	147.6
Ratio of smallest to largest area	96.9	96.7	95.4	95.4	96.1	96.7

(Dec. 1977=100)
Source: BLS, 1981, p. 83; 1982, p. 83.

From these indexes it appears that costs do not vary greatly among the various sized urban areas in the North Central region. The larger areas have slightly higher costs, but the two lower size classes have very similar price indexes.

In 1984, BLS began collecting expenditure data in a sample of nonmetro rural areas. No price data are collected in these rural areas, so a consumer price index for rural areas still cannot be

estimated. However, the expenditure data do show that average rural income is about $5,700 lower than urban income, but average rural expenditures are only $4,500 lower than urban expenditures (BLS, 1986).

In a review of the literature on rural-urban differences in prices, Tobias, et al. (1979) found that in spite of having the same housing needs, rural households pay less for housing, their housing units are smaller, and they have fewer amenities. The average sale price of new, one-family homes sold in 1977 was $56,500 in metro areas and $43,000 in nonmetro areas. However, the average price per square foot of these units was about the same ($25.40 vs. $25.10).

Utility costs per unit are slightly higher in rural areas than in urban areas. And, rural households probably pay more than urban households for basic homeowner insurance coverage because of the difference in their access to fire fighting protection. However, in major cities with high burglary rates, the homeowner's premium is about the same as that in rural areas due to adjustment for potential theft rates (Tobias, et al., 1979).

Rural and urban residents consume a different mix of transportation services. Rural residents travel longer distances to work, shop, and socialize and, therefore, use more gasoline. Gasoline prices do not vary much among urban areas by size, but rural prices are not known. Urban residents are less dependent on automobiles because of the availability of public transit systems. However, urban drivers face more congested traffic and more frequently have to pay for parking (Tobias, et al., 1979).

Estimates of rural-urban differences in the cost of living were made by Holden, et al. (1979) using a sample from the 1972 Consumer

Expenditure Survey. They found that, at all income levels, consumption behavior of rural and urban residents was quite similar. Cost of living indexes estimated for a family with $13,000 in income ranked non-central city metro areas highest, and metro central cities lowest, with nonmetro urban and rural areas in the middle (Holden, et al., 1979, p. 30).

Danziger, et al. (1984) regressed income level, size, and sex and age of the household head on household opinions of how much it took to "make ends meet". Although the analysis did not test residential differences, the results indicated that aged and female householder families needed less income to make ends meet. Larger families needed more income than smaller families, but the effect of each additional family member on needed income decreased with family size.

MacDonald (1985) estimated basic needs for Wisconsin's AFDC-eligible households using data from the Wisconsin Basic Needs Survey (WBNS). Wisconsin pays a 3 percent higher AFDC benefit to recipients in urban areas. MacDonald investigated whether the urban differential is justified, and concluded:

> Despite some merit in the argument that there are offsetting cost-of-living disadvantages to living in both urban and nonurban areas, the BNS data showed that total expenditures and minimum income needs (of AFDC-eligible households) are greater in urban Wisconsin counties. Conveying how this area differential arises was difficult. ...the regression procedure holds income differences between areas constant. Our results counter the common view that urban residents spend more simply because they have more income. ... the population density of urban areas generates costs of living (e.g. increased rents) that are not as important elsewhere. The evidence from Wisconsin thus suggests that there may be important area differentials in other States, and that the magnitude of these will depend on the aerial distribution of each State's population. (MacDonald, 1985, pp. 33-34)

This report uses the entire WBNS sample and analyzes metro and nonmetro households' possessions, expenditures, and subjective economic status. Results help clarify the economic differences and similarities between metro and nonmetro residents of Wisconsin.

DATA AND METHODOLOGY

Data Source - The Wisconsin Basic Needs Survey

The Wisconsin Basic Needs Survey sample is composed of an area probability cross-section of about 1,000 households, supplemented by oversamples of low-income families, female-headed families with children, elderly families, and AFDC recipient families. Households were personally interviewed in March through May, 1981, to obtain information on their income, assets, debts, and taxes for 1980. After the initial interview, respondents were randomly allocated into four panels for reinterview by telephone. Each panel was interviewed by telephone three times from May, 1981 through April, 1982. The reference period for these interviews was the previous month. Respondents were also asked to fill out two-week diaries of food expenditures and small recurring expenses preceding the scheduled telephone interviews. A fourth and final telephone interview was conducted in June through August, 1982. The reference period for this interview was 1981, and information similar to that collected in the first interview was collected.

The portion of the sample selected for this analysis includes respondents to the first telephone interview who also completed the first diary. By definition, these households had completed the

initial personal interview. The number of completed personal interviews was 1,816. Of those, 1,573 completed the first telephone interview. And, of those who completed the telephone interview, 1,133 completed the first expenditures diary. Thus, 62.4 percent of the original sample is used.

Case weights were used to reweight sample cases to their proportions in Wisconsin's population. Since case weights were based on the 1,816 cases that completed the first interview and attrition was slightly heavier in the low-weight cases, weighting did not exactly reweight the selected cases to 1,133. Weighting brought the number of cases analyzed to 1,163.

Household income and demographic data were obtained from the personal interview. Expenditures and opinions on economic status were obtained from the telephone interview and the diary.

Procedures

Variables used in this analysis are generally straightforward interval scale or dummy variables. Amounts reported as spent during the two weeks of the diary were doubled to represent monthly expenditures. Monthly income was computed as one-twelfth of 1980 income received from all sources including the value of food stamps. Income need was determined by responses to the question, "Living where you do now and meeting the expenses you consider necessary, what would be the very smallest amount of income per month after taxes your household would need to make ends meet?"

Possession of durable goods such as stoves, refrigerators, and garbage disposals was determined by use. Renters did not have to own these items to be classified as possessing them.

The analysis is in four parts. The first describes the metro and nonmetro households. Second, the relative status of Wisconsin's nonmetro households is measured objectively through housing characteristics, possession of durable goods, and the types and levels of expenditures. Third, respondents' opinions on the adequacy of their incomes, their standard of living, and the cost of basic necessities provide subjective comparisons of metro and nonmetro well-being. Finally, income needs are subjected to regression analysis to determine whether household characteristics or current spending patterns can explain the variation in minimum income needs of metro and nonmetro households.

DESCRIPTIVE RESULTS

Household Characteristics

The percentage distributions in Table 1 show that Wisconsin's metro and nonmetro households are similarly distributed by various demographic and employment characteristics, although there are some significant differences. By gender and marital status, slightly more nonmetro respondents were married men while more metro respondents were never-married women. Nevertheless, households with married-male respondents were the largest group in both areas. By age, the nonmetro households had proportionally fewer respondents in the 25 to 34 age group and a much higher proportion in the 65 and older group. Respondents 65 and older comprised 33 percent of nonmetro respondents compared to 20 percent of metro respondents. And, by education, about one-quarter of nonmetro respondents had completed 8 or fewer years of schooling compared with 12 percent of metro respondents.

Table 1. General characteristics of Wisconsin Basic Needs Survey households by residence, 1981

Characteristics	Metro	Nonmetro
	Percent	
Respondents by gender and marital status		
Male		
Married	48.5*	56.2*
Divorced/widowed/separated	11.5	13.7
Never married	5.3	5.1
Female		
Married	18.4	15.9
Divorced/widowed/separated	6.0	4.3
Never married	10.3*	4.8*
Age of respondents		
Under 25	11.6	8.8
25-34	24.3*	18.6*
35-44	13.3	12.8
45-54	14.8	13.3
55-64	16.5	13.5
65 and older	19.6*	33.2*
Education of respondents		
Less than 5 years	.6	.8
5-8	11.6*	23.9*
9-11	10.2	11.8
High school graduate	41.7	44.0
1-3 years college	19.1*	9.7*
College graduate	9.5	7.5
1 or more years postgraduate	7.2*	2.4*
Percent of respondents who are working	67.2	63.8
Percent of households with one or more adults who are:		
self-employed farmers	2.5*	9.4*
self-employed in other business	11.1	12.9
working for wages or salaries	69.6*	61.9*
unpaid workers	2.7*	7.2*
	Number	
Average household size	2.6	2.8

* Difference between metro and nonmetro percentages is significant at $p \leq .05$.

Source: Computed from WBNS sample.

Correspondingly, more metro respondents had completed one or more years of college.

A higher percentage of nonmetro households contained farm operators and unpaid workers (probably helping on family farms and businesses). A higher percentage of metro households contained wage and salary workers.

As indicated earlier, nonmetro households have consistently had lower average income than metro households. The WBNS survey enumerated a larger number of income sources (e.g. lump sum payments from trusts or insurance policies, the value of food stamps, and cash charity) than the Census Bureau counts in regularly received cash income, but also shows average nonmetro income to be lower than metro income. Average monthly income of nonmetro households was $1,600, 86 percent of the metro average of $1,858 (table 2).

However, nonmetro households indicated that they could "make ends meet" with less income than metro households thought they needed. On average, nonmetro households thought it would take $837 per month while metro households thought it would take $931 per month to make ends meet. This difference in need of $94 is less than the difference in average income of $258.

Homeownership and Durable Goods

Table 3 shows nonmetro households to be more likely than metro households to own a home, 78 vs. 64 percent. More nonmetro households own their homes outright, not having any mortgage payments, 45 vs. 27 percent. For those paying a mortgage, there was no significant difference in payment amount, nonmetro households averaged $331 per month while metro averaged $361. The assessed

Table 2. Income of Wisconsin Basic Needs Survey households by residence, 1980

Characteristics	Metro	Nonmetro	Difference	Ratio of Nonmetro to Metro
Average monthly money income plus food stamps	$1,858	$1,600	$258*	.86
Average monthly income needed to "make ends meet"	$931	$837	$94*	.94

* Difference between metro and nonmetro means is significant at $p \leq .05$.

Source: Computed from WBNS sample.

Table 3. Housing characteristics of Wisconsin Basic Needs Survey households by residence, 1981

Characteristics	Metro	Nonmetro
Percent of households:		
own, no mortgage	26.6*	45.3*
buying, paying mortgage	37.6	33.0
rent	34.8*	18.0*
other	1.1*	3.8*
For those paying a mortgage:		
Average mortgage payment	$361	$331
For those who own or are buying a house:		
Assessed value of house	$40,141*	$30,651*
Value if sold today	$60,826*	$49,238*
For renters:		
Average rent	$221	$196
percent whose rent includes:		
parking	74.9*	88.1*
heat	57.5*	34.3*
water	86.5*	61.2*
electric	15.3*	26.7*
gas	26.9	20.9
appliances	70.2	65.7
furniture	12.7	17.9
Average bathrooms	1.3	1.2
Average persons per room	.5	.5

* Difference between metro and nonmetro means or percentages is significant at $p \leq .05$.

Source: Computed from WBNS sample.

value of nonmetro homes averaged $9,500 less than metro homes and the nonmetro owners' opinions of what their homes would sell for was about $11,600 less than what metro homeowners thought they could get.

Although we generally assume that renters in more urban areas pay higher rents, renters in metro areas averaged only $25.00 higher monthly rents than nonmetro renters, not a significant difference. The services included in rent did not appear to favor either group. A larger percentage of metro renters had heat and water included in their rent, while nonmetro renters were more likely to receive parking and electricity with their rentals.

Comparing the durable goods in nonmetro and metro households shows that most items are of equal usage (table 4). Items that a larger percentage of nonmetro households have include separate freezers, sewing machines, lawnmowers, portable heaters, electric drills and table saws, playground equipment, trucks, motorcycles, motorboats, and snowmobiles. Most of these items can be related to self-sufficiency -- freezers for storing home-grown produce, tools for self-made clothing, furniture, or home improvements and repair, and motorized transportation for the longer distances rural people travel for work, shopping, and entertainment.

Items that are more prevalent among metro households include dishwashers, air conditioners, garbage disposals, and entertainment equipment (slide projectors, stereo systems, tape recorders, and mopeds). These items are related to time-saving in household tasks and home entertainment.

The major appliances and other durable goods do not show a particular metro advantage. If anything they indicate <u>slight</u>

Table 4. Durable goods of Wisconsin Basic Needs Survey households by residence, 1981

Durable goods	Metro	Nonmetro
Percent of households with:1/		
Kitchen appliances:		
Stove	99.5	99.2
Refrigerator	99.9	99.2
Freezer	50.4*	70.2*
Dishwasher	36.8*	25.2*
Microwave oven	15.4	16.1
Garbage disposal	40.4*	13.9*
Blender	72.8	71.3
Electric Mixer	86.4	88.2
Food processor	11.6	10.8
Other household appliances:		
Telephone	99.1	99.2
Clothes washer and dryer	74.5	72.4
Vacuum cleaner	95.6	95.7
Sewing machine	70.6*	77.2*
Lawnmower	69.2*	81.5*
Electric drill	63.4*	71.6*
Table saw	22.0*	34.9*
Heating and air conditioning:		
Central heating	94.8*	86.9*
Central or separate A.C.	53.6*	28.4*
Portable heater	30.9*	40.1*
Fan	72.4	76.9
Entertainment equipment:		
Black & white or color TV	98.2	98.9
Movie camera	18.1	13.7
Other camera	88.7	86.1
Slide projector	20.9*	15.8*
Movie projector	16.2	13.4
VCR	1.6*	0*
Stereo system	76.2*	63.5*
Radio, not part of stereo	93.3	95.7
Phonograph, not part of stereo	32	36.5
Tape recorder, not part of stereo	52.8*	42.4*
Playground equipment	13.5*	22*
Built-in swimming pool	2.8*	.8*
Musical instruments	36.5	38.1
Major transportation:		
Automobile	86.7	88.5
Van	4.6	2.7
Truck	16.8*	34.6*
No car, van, or truck	10.9*	7.2*
Recreational transportation:		
Camper/trailer	8.6	8.8
Scooter/moped	3.8*	1.6*
Motorcycle	8.6*	12.6*
Motorboat	12.4*	18*
Snowmobile	8.1*	16.5*
Bicycles	63.5	57.6

1/ Possession is based on the item being in the household whether or not the household owns it.

* Difference between metro and nonmetro percentages is significant at $p \leq .05$.

Source: Computed from WBNS sample.

differences in life-styles between Wisconsin's nonmetro and metro households.

Current Expenditures

WBNS respondents were asked to complete a two-week diary of their daily expenditures. In the telephone interview they were asked about major expenditures during the reference month. Table 5 shows average monthly expenditures for nonmetro and metro households. It also indicates what percentage of nonmetro and metro households made each type of expenditure and the average expenditure for those having made that type of expenditure.

While both nonmetro and metro households averaged about $210 per month on food, nonmetro households bought more of their food to eat at home while metro households spent more on food away from home. The only category of small, frequent purchases that metro households spent more on than nonmetro households was entertainment, averaging $10 more per month.

On larger expenditures reported in the interview, nonmetro households averaged significantly lower rent/mortgage,[1/] loan and credit card payments, furniture and appliance purchases, support payments (alimony, child support, and other support), educational expenses, and trips. Although average expenditures were higher when only those households with the expenses were considered, the relationships between the averages for metro and nonmetro households

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1/ Separately, rents and mortgages did not significantly differ between metro and nonmetro areas. But, together, the larger percentage of metro households paying rent or mortgage caused an overall difference which is significant.

Table 5. Monthly expenditures of Wisconsin Basic Needs Survey households by residence, 1981

	Metro			Nonmetro		
	Overall Average	Cases with expenses: Percent	Average	Overall Average	Cases with expenses: Percent	Average
Monthly expenditures from diary	457	100.0	457	429	100.0	429
Food at home	146*	100.0	146	159*	100.0	159
Food away from home	66*	91.4*	72*	49*	87.4*	56*
Household products	38	91.0	42	34	93.8	37
Alcohol and tobacco	25	68.0	37	22	64.6	34
Personal care products	22	83.0	27	21	85.3	25
Entertainment	34*	59.7*	56	23*	50.4*	46
Reading/writing materials	18	84.4	21	15	81.0	19
Transportation	109	90.1	121	105	90.0	117
Monthly expenditures from interview	1,007*	100.0	1,007	734*	100.0	734
Utilities	86	98.2	87	87	98.7	88
Utility service	5	15.4*	32*	4	23.2*	16*
Cable TV	4*	19.7	19*	2*	15.3	13*
Rent or mortgage	189*	71.0*	266*	100*	47.7*	210*
Loan payments	75*	38.6*	195*	45*	29.5*	151*
Credit card payments	81*	55.1*	146	39*	32.4*	121
Car down-payments	87	5.1	1723	74	4.0	1903
Tool purchases	9	8.2	109	17	9.1	189
Audio-video equipment	18	16.6	106	16	13.9	119
Major appliances and furniture	42*	9.4	450*	24*	7.5	316*
Rental and leasing fees	1	1.1	78	<	<	57
Small appliances	2*	7.7	29	1*	5.1	20
Medical costs	48	61.8	78	49	62.2	79
Insurance payments	68	57.8	118	68	59.0	115
Services	7	9.9	68	7	10.2	67
Support payments	16*	3.3	466*	2*	3.2	75*
Educational expenses	20*	16.6	124	11*	14.5	76
Subscriptions and memberships	10	47.1*	22	7	36.5*	20
Trips	78*	25.1*	309*	28*	16.6*	166*
Repairs	90	41.4*	218*	73	50.9*	143*
Clothing	44	62.0	71	37	59.0	62
Other major expenses	27	15.9*	171	44	9.9*	440

< Less than .5 percent or $0.50.

* Difference between metro and nonmetro means or percentages is significant at $p \leq .05$.

Source: Computed from WBNS sample.

stayed the same. On no item in the interview did nonmetro households average higher expenditures than metro households.

Overall, nonmetro households averaged $429 in monthly expenses from the diary and $734 from the interview. These averages compare with $457 and $1,007 for metro households. On the everyday expenses reported in the diary, metro and nonmetro households did not differ. On the larger, less frequent expenditures metro households averaged significantly higher expenditures. These expenditure patterns indicate more discretionary income in metro households.

Subjective Well-being

Along with the objective measures of their housing, durable goods, and expenditures, households were asked for opinions of their financial status. The distributions of responses to these questions were nearly identical for metro and nonmetro households. Half of both groups were either pleased or delighted with life as a whole (table 6). Standard of living also elicited nearly half pleased or delighted. When more specifically economic areas were questioned, both groups were less enthusiastic. Household income only pleased or delighted about 30 percent of each group and the cost of basic necessities was very negatively viewed. Slightly less than half of metro and nonmetro households felt mostly dissatisfied, unhappy, or terrible about the cost of necessities. Interpretation of these subjective responses could be complicated by metro and nonmetro households having compared their economic status to different standards. However, when households were asked what standard was most important in ranking their income, nonmetro and metro households

Table 6. Respondents' Opinions of Their Economic Status, Wisconsin Basic Needs Survey households by residence, 1981

How the respondent feels about:	Metro	Nonmetro
	Percent	
Life as a whole		
Pleased or delighted	53.8	50.1
Mostly satisfied	34.2	36.7
Mixed feelings	9.5	10.5
Mostly dissatisfied or worse	2.4	2.7
Standard of living		
Pleased or delighted	48.4	44.2
Mostly satisfied	36.5	39.9
Mixed feelings	9.6	11.8
Mostly dissatisfied or worse	5.5	4.0
Income		
Pleased or delighted	27.6	32.7
Mostly satisfied	38.8	34.6
Mixed feelings	17.4	18.4
Mostly dissatisfied	7.9	7.6
Unhappy or terrible	8.5	6.8
To what standard is income compared?		
Bare minimum	17.3	20.9
Past income	10.4	13.1
Parents' income	1.1	1.6
Friends' income	3.8	3.1
Expected future income	14.7	16.6
Co-workers' income	7.4	4.4
"Average" person's income	19.5	16.9
Income shown by media	.8	.3
"What is fair"	22.8	21.3
Other standard	2.1	1.9
Cost of basic necessities		
Pleased or delighted	4.9	6.8
Mostly satisfied	17.2	21.2
Mixed feelings	29.0	24.5
Mostly dissatisfied	20.8	22.3
Unhappy or terrible	28.2	25.3
What is household financial status?		
Poor	2.3	3.8
Just getting along	33.2*	42.5*
Comfortable	59.8*	49.5*
Prosperous or rich	4.8	4.3

* Difference between metro and nonmetro percentages is significant at $p \leq .05$.

Source: Computed from WBNS sample.

were similarly distributed over the standards they used for comparison.

Since these opinions are a reflection of the utility or satisfaction households get from the economic aspects of their lives, the similarities show that, on average, nonmetro households are just as satisfied as metro households.

Interestingly, when households were asked about their financial status, 43 percent of nonmetro households saw themselves as "just getting along" compared with 33 percent of metro households. Conversely, 10 percent more metro households saw themselves as financially "comfortable" than did nonmetro households. This difference in financial status suggests that proportionally more nonmetro households could be dissatisfied with their economic conditions. Since the standard of living and income responses did not show them to be less satisfied than metro households, nonmetro households may be comparing themselves to lower standards (even though they compare themselves to the same types of standards as metro households).

NEED COMPARED TO INCOME AND EXPENDITURES

Average Need by Income Level and Household Size

Households' opinions on what they need to get by are influenced by the number of persons in the household and their current income (Danziger, et al., 1984; MacDonald, 1985). Once Wisconsin's nonmetro and metro households are divided into household size and income categories, the only significant differences in need are between 1 to 2 person households with less than $1,000 in monthly income and between 3 to 4 person households in that income category (table 7).

Table 7. Average income and minimum need by income level, household size, and residence, Wisconsin Basic Needs Survey households, 1981

	Number of Cases	Mean Monthly Income	Mean Minimum Income Needed	Difference between income and need
Income less than $1,000/mth.				
1 or 2 persons				
Income less than $500/mth.				
Metro	54	333.94	631.04	-297.10***
Nonmetro	45	343.08	438.98	-95.90*
Difference (metro-nonmetro)		-9.14	192.06*	
Income $500-999/mth.				
Metro	106	795.39	607.88	187.51***
Nonmetro	42	748.92	509.44	239.48***
Difference (metro-nonmetro)		46.47	98.44*	
3 or 4 persons				
Metro	31	689.32	810.45	-121.13
Nonmetro	20	579.15	516.10	63.05
Difference (metro-nonmetro)		110.17	294.35**	
5 or more persons				
Metro	9	613.82	754.40	-140.58
Nonmetro	9	720.01	612.35	107.66
Difference (metro-nonmetro)		-106.19	142.05	
Income $1,000 to 1,999/mth.				
1 or 2 persons				
Metro	160	1,405.62	749.44	656.18***
Nonmetro	57	1,430.32	738.29	692.03***
Difference (metro-nonmetro)		-24.70	11.15	
3 or 4 persons				
Metro	81	1,533.87	925.18	608.69***
Nonmetro	41	1,482.48	879.70	602.78***
Difference (metro-nonmetro)		51.39	45.48	
5 or more persons				
Metro	20	1,529.91	1,025.02	504.89***
Nonmetro	28	1,410.28	1,027.63	382.65***
Difference (metro-nonmetro)		119.63	-2.61	
Income $2,000 or more/mth.				
1 or 2 persons				
Metro	107	3,116.31	1,103.96	2,012.35***
Nonmetro	33	3,038.05	997.02	2,041.03***
Difference (metro-nonmetro)		78.26	106.94	
3 or 4 persons				
Metro	121	3,063.23	1,216.28	1,846.95***
Nonmetro	46	2,904.00	1,142.54	1,761.46***
Difference (metro-nonmetro)		159.23	73.74	
5 or more persons				
Metro	64	3,110.02	1,408.33	1,701.69***
Nonmetro	30	3,206.56	1,489.98	1,716.58***
Difference (metro-nonmetro)		-96.54	-81.65	

*** Difference is significant at $p \leq .001$.
** Difference is significant at $p \leq .01$.
* Difference is significant at $p \leq .05$.

There are so few households in the low income category with 5 or more persons that no conclusions can be drawn about them.

At the two higher income levels ($1,000 to $1,999 per month and $2,000 or more per month), there are no significant differences in average need between metro and nonmetro households. All households at these higher income levels averaged significantly higher income than need. And, average need increased with household size as expected.

Regressions of Need by Household Characteristics and Expenditures

Are there explanatory factors, beyond income level and household size, that explain subjective need? To explore this question, households' minimum need responses were subjected to regression analysis. First, independent variables related to household characteristics were used. Monthly income and household size were included to control for the relationships already explored. Dummy variables for the respondent being over 65 or female, with no husband present, were also included since the literature on the determination of poverty thresholds finds these two variables to have negative effects on need (Danziger, et al., 1984; Orshansky, 1965a & 1965b). A dummy variable for home ownership was included because the lack of paying rent or a mortgage is hypothesized to have a negative effect on the amount of income households think they need.

Separate regressions were run for metro and nonmetro households. Results of these regressions are shown in table 8. As expected, monthly income and size of household are the most influential variables (based on standardized coefficients). In fact, in the regression for nonmetro households, they are the only

Table 8. Regression results of need by household characteristics, Wisconsin Basic Needs Survey households, 1981

	Combined	Metro	Nonmetro
Coefficients· (Standaradized)			
Constant	506.76**	513.07**	483.16**
Monthly income	.167** (.378)	.156** (.380)	.181** (.361)
Size of household	61.62** (.163)	71.36** (.196)	52.44* (.132)
Respondent 65 or older	-49.94 (-.037)	-38.06 (-.029)	-47.68 (-.034)
Female respondent	-83.79* (-.065)	-82.54* (-.072)	-105.25 (-.064)
Home owned, no mortgage	-125.77** (-.103)	-112.06* (-.095)	-135.31 (-.102)
Summary Statistics			
Number of Cases	1104	754	350
R-squared	.27	.29	.22
F	82.15**	63.64**	20.98**

** Significant at $p \leq .001$.
* Significant at $p \leq .05$.

Source: Computed from WBNS sample.

statistically significant variables. In the regression for metro areas, female respondent and homeownership had significant negative effects on need. The characteristics explained somewhat more variation in metro need than in nonmetro need (29 percent compared to 22 percent), but both equations left at least two-thirds of the variation unexplained.

The core of essential expenditures is generally considered to consist of food, clothing, shelter, and transportation. Do expenditures on these items explain households' minimum need responses? Are current expenditures any better at explaining need than household characteristics are? Since monthly expenditures on essential items were collected, these questions can be explored. Results of these regressions are shown in table 9. Food, clothing, and housing were significant, with food having the largest standardized effect on need. The regressions explained less of the variation in need than did the household characteristics regressions.

Why neither regression explained much variation in need is problemmatic. Danziger, et. al (1984) explained about 44 percent of the variation in need with an equation very similar to the household characteristics equation used here. They logged need, income, and family size and did not include home-ownership. Logging the need, income, and family size variables was tried, but it did not result in significantly more variation explained.

In neither regression can multicollinearity be blamed. Among the household characteristics, age 65 or older and homeownership were the most highly correlated at 0.51 (for nonmetro areas). Among the essential expenditures, food and utilities were the most highly correlated at 0.39 (for nonmetro areas).

Table 9. Regression results of need by necessary expenditure
Wisconsin Basic Needs Survey households, 1981

	Combined	Metro	Nonmetro
Coefficients (Standardized)			
Constant	427.62**	406.33**	432.64**
Food	1.26**	1.10**	1.70**
	(.276)	(.273)	(.294)
Clothing	.558**	.384*	1.12**
	(.092)	(.073)	(.136)
Utilities	.673*	1.19**	-.234
	(.085)	(.157)	(-.028)
Transportation	-.012	.049	-.345
	(-.003)	(.015)	(-.054)
Shelter	.74**	.846**	.560**
	(.235)	(.281)	(.157)
Summary Statistics			
Number of Cases	1104	754	350
R-squared	.19	.23	.14
F	52.79**	47.22**	12.43**

** Significant at $p \leq .001$.
* Significant at $p \leq .05$.

Source: Computed from WBNS sample.

Households may have considered a larger set of expenditures to be necessary. And, factors other than those specified in either set of regressions may affect household perceptions of minimum needs.

SUMMARY AND CONCLUSIONS

The economic status of Wisconsin's nonmetro households in comparison to its metro households has been examined from several angles. The housing costs of nonmetro households were found to average about the same as metro housing costs when only those households paying rent or mortgages are considered. The overall advantage in housing costs derived from the higher percentage of nonmetro households who are not paying a mortgage on their homes. On the other hand, a value benefit accrued to metro homeowners because their homes were, on average, worth more than nonmetro homes.

In durable goods, there was no appreciable nonmetro disadvantage. There were some items that a higher percentage of metro households possessed, but those items were balanced by others that a higher percentage of nonmetro households possessed.

Current expenditures showed about equal expenditures on most small, recurring items. Metro households spent more on several types of large, less frequent expenditures such as furniture and appliances, support payments, educational expenses, and trips.

Although a larger percentage of nonmetro households considered their financial status to be "just getting along", nonmetro households were no more negative about their standard of living or incomes than were metro households. High percentages of both nonmetro and metro households were quite negative about the cost of basic necessities.

The only significant metro-nonmetro differences in perceived income needs were between households in the less than $1,000 per month income category. Within the category, metro households with 1 or 2 persons and metro households with 3 or 4 persons averaged higher income needs than did their nonmetro counterparts. At higher income levels, need was significantly lower than current income and there was no significant difference between metro and nonmetro households' needs.

Regression analysis revealed that household characteristics and current expenditures on necessities explain low, but significant, percentages of the variation in subjective needs. The metro and nonmetro equations were not significantly different.

Comparing metro and nonmetro income, needs, and expenditures showed Wisconsin's households to be quite homogeneous in their spending patterns and needs. Although no definitive answer was obtained on whether there is a metro-nonmetro cost difference that is commensurate with the income differential, it appears from the diary expenditures and need data that nonmetro households face similar costs. That nonmetro households seemed to feel no worse about their economic situation than metro households indicates that nonmetro households may be satisfied with less income. Or, as often posited, nonmetro lifestyles may provide nonmonetary rewards that compensate for lower income.

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